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EXAMINER	
JELINEK, BRIAN J	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/899,083	KIM, SUNG BONG	
	Examiner	Art Unit	
	Brian Jelinek	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 2005 (RCE)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

The Examiner respectfully submits a response to the amendment received on 4/5/2005 of application no. 09/899,083 filed on 7/6/2001 in which claims 1 and 3-28 are currently pending.

Arguments

In view of the Applicant's arguments, the previous 102 rejections anticipated by Beis have been withdrawn.

The Applicant disagrees with the Examiner's application of Easterly in part because of differing interpretations on what comprises a switching of modes. The Applicant has defined "switching the photographing mode of the camera" as "photographing the scene by using an OLPF in the lens unit or without using the OLPF". The Examiner maintains that Merriam-Webster defines "switch" as a shift from one to another, and "mode" as "a particular functioning arrangement or condition". Although the Applicant is entitled to be his own lexicographer, broadly speaking, it is reasonable to consider changing the aperture within the iris as switching modes since the iris is shifted from a first aperture setting condition to a second aperture setting condition.

The Applicant asserts that Beis and Easterly are concerned with distinctly different problems. The Examiner notes that Easterly provides a method to determine light intensity and adjusts an aperture within the iris to produce proper exposure; and Beis provides one image sensor for a low light intensity nighttime mode and another image sensor for a high light intensity daytime mode. The Examiner directs the

Applicant to the "Description of the Background Art" in the instant application. In summary, the first paragraphs disclose that most cameras have a function of automatic exposure setting or automatic aperture setting (Iris) and accordingly, are capable of photographing in the daytime and nighttime. Namely, the camera measures the illumination of the scene and in case the illumination is low, it controls the degree of exposure during imaging so that the image captured has a proper brightness. On the other hand, in the case of controlling the exposure amount of an image by controlling the iris of a camera, it is difficult because the physical amount that the iris can be opened is limited. In the case where the available illumination is insufficient, photographing is enabled with use of a subsidiary source of light. In the case where a subsidiary source of light is not available, the photographing operation is performed by changing the lens of a camera to one capable of photographing in the low light intensity range. As such, the Prior Art teaches that changing between high and low light intensity ranges comprises changing aperture settings and/or changing camera components in order to perform imaging in a low light intensity range.

The Applicant assets that no objective evidence has been provided that detecting the illumination level according to the statistical method of Easterly would be clearly advantageous in Beis because it would result in a more robust analysis. In response, obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In this case, it would have been

within the knowledge generally available to one of ordinary skill in the art at the time of the invention to detect the illumination level according to Easterly in order to provide a robust statistical method to determine when to switch photographing modes, wherein the statistical method reduces false switching determinations from highlights caused by small regions of high intensity that are not representative of the intensity level.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4, 8-11, 15, 19, 20-21, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Easterly et al. (U.S. 5,038,216).

Regarding claim 1, Easterly discloses a method for controlling a CCD camera (Fig. 1A, element 20) comprising the steps of: detecting illumination levels in a certain space to be photographed (col. 18, lines 53-56, maximum pixel intensity value); generating digital image data corresponding to the detected illumination levels (Fig. 1A, element 25); dividing the digital image data into plural cell regions (col. 18, line 56, paxel); comparing the detected illumination levels for each cell region to a previously determined standard illumination level (col. 18, line 67, given eight-bit threshold value); and switching a photographing mode of a camera on the basis of the comparison (col. 18, line 64-col. 19, line 11).

Regarding claim 3, Easterly discloses in the comparing step, it is determined whether the illumination level of each cell region is higher than the standard illumination level (col. 18, line 64-col. 19, line 11, particularly col. 19, lines 7-11).

Regarding claim 4, Easterly teaches the step of switching the photographing mode of the camera comprises the sub-steps of: counting the number of cell regions having a detected illumination level less than the standard illumination level and determining whether the thusly counted number of cell regions is greater than a certain percentage of the total number of cell regions (col. 18, line 64-col. 19, line 4); and switching the photographing mode of the camera on the basis of the determination (col. 18, line 64-col. 19, line 11). Although Easterly does not specifically state that the number of cell regions is counted, counting the cells in inherent in determining a percentage.

Regarding claim 8, Easterly discloses a method of controlling a photographing mode of a camera, comprising the steps of: dividing a photographing area into a plurality of cell regions (col. 18, line 56, paxel); detecting an illumination level of each cell region (col. 18, lines 53-56, maximum pixel intensity value); and switching the photographing mode of the camera on the basis of the determination whether the detected illumination levels of each cell regions is higher than a previously determined standard illumination level (col. 18, line 64-col. 19, line 11, particularly col. 19, lines 7-11).

Regarding claim 9, Easterly discloses switching the photographing mode (col. 18, line 64-col. 19, line 11, particularly col. 19, lines 7-11) of the camera on the basis of

determining whether the illumination level of each cell region is higher than a previously determined standard illumination level (col. 18, line 67, given eight-bit threshold value).

Regarding claim 10, Easterly teaches switching the photographing mode of the camera comprises the sub-steps of: counting the number of cell regions among all the cell regions having a lower illumination level than a previously determined standard illumination level and determining whether the counted number of cell regions is higher than a certain percentage of the total number of cell regions (col. 18, line 64-col. 19, line 11); and switching the photographing mode of the camera on the basis of the determination (col. 18, line 64-col. 19, line 11). Although Easterly does not specifically state that the number of cell regions is counted, counting the cells in inherent in determining a percentage.

Regarding claim 11, Easterly discloses the photographing mode of the camera is switched (col. 18, line 64-col. 19, line 11, particularly col. 19, lines 7-11) on the basis of comparing the detected illumination levels (col. 18, lines 53-56, maximum pixel intensity value) and the previously determined standard illumination level (col. 18, line 67, given eight-bit threshold value).

Regarding claim 15, Easterly discloses a method of controlling a photographing mode of a camera, comprising the steps of: dividing a photographing area into a plurality of cell regions (col. 18, line 56, paxel) and detecting an illumination level of each cell region (col. 18, lines 53-56, maximum pixel intensity value); determining whether the detected illumination level of each cell region is greater than the previously determined standard illumination level (col. 18, line 67, given eight-bit threshold value);

counting the number of the cell regions having a lower illumination level than the standard illumination level and determining whether the counted number is greater than a certain percentage of the total number of cell regions (col. 18, line 64-col. 19, line 4); and switching the photographing mode of the camera on the basis of the determination (col. 18, line 64-col. 19, line 11). Although Easterly does not specifically state that the number of cell regions is counted, counting the cells in inherent in determining a percentage.

Regarding claim 19, Easterly teaches a method of controlling a photographing mode of a camera, comprising the steps of: dividing a photographing area into a plurality of cell regions (col. 18, line 56, paxel) and detecting the illumination of each cell region (col. 18, lines 53-56, maximum pixel intensity value); determining whether the illumination of each cell region is greater than a previously determined standard illumination value (col. 18, line 67, given eight-bit threshold value); counting the number of the cell regions having a lower illumination than the standard illumination value and determining whether the counted number of cell regions is greater than a is certain percentage of the total number of cell regions (col. 18, line 64-col. 19, line 4); and switching the photographing mode of the camera on the basis of the determination (col. 18, line 64-col. 19, line 11). Although Easterly does not specifically state that the number of cell regions is counted, counting the cells in inherent in determining a percentage.

Regarding claim 20, Easterly discloses the cell regions divide the photographing area at regular intervals (col. 18, line 56, paxel).

Regarding claim 21, Easterly teaches uniformly averaging the illumination of the cell regions regardless of the position of the cell regions (Fig. 1A, element 20) because it is inherent that the output of each pixel is an average illumination since it is a measure of the total charge per exposure time.

Regarding claim 25, Easterly discloses a camera having a photographing mode, comprising: means for dividing a photographing area into a plurality of cell regions (col. 18, line 56, paxel); means for detecting an illumination level of each cell region col. 18, lines 53-56, maximum pixel intensity value); means for switching the photographing mode of the camera on the basis of the detected illumination levels (col. 18, line 64-col. 19, line 11); and switching the photographing mode of the camera on the basis of determining whether the illumination level of each cell region is higher than a previously determined standard illumination level (col. 18, line 67, given eight-bit threshold value).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Easterly et al. (U.S. 5,038,216).

Regarding claim 24, Easterly discloses a CCD camera (Fig. 1A, element 20) comprising: means for detecting illumination levels in a certain space to be photographed (col. 18, lines 53-56, maximum pixel intensity value); means for generating digital image data corresponding to the detected illumination levels (Fig. 1A, element 25); means for dividing the digital image data into plural cell regions (col. 18, line 56, paxel); means for comparing the detected illumination levels for each cell region to a previously determined standard illumination level (col. 18, line 67, given eight-bit threshold value); and means for switching a photographing mode of a camera on the basis of the comparison result (col. 18, line 64-col. 19, line 11). Furthermore, Easterly discloses determining a peak illumination value using the digital image data in the plurality of regions (col. 18, lines 53-56, maximum pixel intensity value). Easterly does not disclose means for determining the average detected illumination using the digital image data in the plurality of regions.

However, it is extremely well known in the art to represent a group of data, e.g. pixel values, with a representative value determined by numerous different methods including minimum, maximum, average, mode, and median values. Official Notice is given that it would have been obvious to one of ordinary skill in the art at the time of the invention to have determined the average illumination in the plurality of regions, rather than the peak illumination, because of the equivalence of the average and peak values to provide a single value that "summarizes or represents the general significance of a set of unequal values" in the art and the selection of any of these known equivalents to provide a single, representative value would be within the level of ordinary skill in the art

at the time of the invention. As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to have determined the average detected illumination using the digital image data in the plurality of regions, rather than the peak illumination value, because the selection of a minimum, maximum, average, mode, or median value are art recognized equivalents for providing a single value that "summarizes or represents the general significance of a set of unequal values".

Claims 1,5-8,12-19, 22, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beis (U.S. Pat. No. 5,172,220), in view of Easterly et al. (U.S. 5,038,216).

Regarding claim 1, Beis discloses a method for controlling a CCD camera (Fig. 4) comprising the steps of: detecting illumination levels in a certain space to be photographed (col. 5, lines 26-41); generating digital image data corresponding to the detected illumination levels (col. 5, lines 26-41); dividing the digital image data into plural cell regions (col. 5, lines 26-41); comparing the detected illumination levels to a previously determined standard illumination level (col. 2, lines 31-36); and switching a photographing mode of a camera on the basis of the comparison (col. 2, lines 31-36). Beis does not disclose comparing the detected illumination levels for each cell region to a previously determined standard illumination level.

However, Easterly discloses a CCD camera switches a photographing mode to compensate for high and low light intensities by changing the aperture within the iris by dividing the digital image data into plural cell regions (col. 18, line 56, paxel); comparing

the detected illumination levels for each cell region to a previously determined standard illumination level (col. 18, line 67, given eight-bit threshold value); and switching a photographing mode of a camera on the basis of the comparison (col. 18, line 64-col. 19, line 11). One of ordinary skill in that art would have provided means for dividing the digital image data into plural cell regions and comparing the detected illumination levels for each cell region to a previously determined standard illumination level in a day/night camera that compensates for high and low light intensities by changing between image sensors, such as Beis, in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from highlights caused by small regions of high intensity that are not representative of the intensity level. As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided means for dividing the digital image data into plural cell regions and comparing the detected illumination levels for each cell region to a previously determined standard illumination level in a day/night camera that compensates for high and low light intensities by changing between image sensors, such as Beis, in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from highlights caused by small regions of high intensity that are not representative of the intensity level.

Regarding claim 5, Beis discloses the step of switching the photographing mode of the camera switches the photographing mode of the camera to a daytime mode or a

nighttime mode on the basis of the results of a comparison (col. 4, lines 49-53; col. 1, lines 8-10).

Regarding claim 6, Beis discloses the photographing mode of the camera is switched to a nighttime mode in the case where the illumination level is lower than a standard illumination level (col. 4, lines 49-53; col. 1, lines 8-10). Beis does not disclose the photographing mode of the camera is switched to a low light intensity mode in case the number of cell regions having a lower illumination level than the standard illumination level is greater than a certain percentage of the total number of cell regions.

However, Easterly discloses the photographing mode of the camera is switched to a low light intensity mode in case the number of cell regions having a lower illumination level than the standard illumination level is greater than a certain percentage of the total number of cell regions (col. 18, line 64-col. 19, line 11). One of ordinary skill in that art would have provided means for switching to a low light intensity mode in case the number of cell regions having a lower illumination level than the standard illumination level is greater than a certain percentage of the total number of cell regions in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from highlights caused by small regions of high intensity that are not representative of the intensity level. As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided means for switching to a low light intensity mode in case the number of cell regions having a lower illumination level than the standard illumination level is greater than a certain percentage of the total number of cell regions

in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from highlights caused by small regions of high intensity that are not representative of the intensity level.

Regarding claim 7, please see the rejection for claim 6 and note that a daytime mode is switched to a night time mode, and vice versa, upon reaching a threshold (col. 2, lines 31-39; col. 1, lines 8-10).

Regarding claim 8, Beis discloses a method of controlling a photographing mode of a camera (Fig. 4), comprising the steps of: dividing a photographing area into a plurality of cell regions (col. 5, lines 26-41); detecting an illumination level of each cell region (col. 5, lines 26-41); and switching the photographing mode of the camera on the basis of the determination whether the detected illumination levels are higher than a previously determined standard illumination level (col. 2, lines 31-36). Beis does not disclose switching the photographing mode of the camera on the basis of the determination whether the detected illumination levels of each cell region is higher than a previously determined standard illumination level.

However, Easterly discloses switching the photographing mode of the camera on the basis of the determination whether the detected illumination levels of each cell region is higher than a previously determined standard illumination level (col. 18, line 64-col. 19, line 11, particularly col. 19, lines 7-11). One of ordinary skill in that art would have provided means for switching the photographing mode of the camera on the basis of the determination whether the detected illumination levels of each cell region is

higher than a previously determined standard illumination level in a day/night camera that compensates for high and low light intensities by changing between image sensors, such as Beis, in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from highlights caused by small regions of high intensity that are not representative of the intensity level. As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided means for switching the photographing mode of the camera on the basis of the determination whether the detected illumination levels of each cell region is higher than a previously determined standard illumination level in a day/night camera that compensates for high and low light intensities by changing between image sensors, such as Beis, in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from highlights caused by small regions of high intensity that are not representative of the intensity level.

Regarding claim 12, Beis discloses the photographing mode of the camera comprises a daytime mode and a nighttime mode (col. 4, lines 49-53; col. 1, lines 8-10).

Regarding claim 13, please see the rejection of claim 6.

Regarding claim 14, please see the rejection of claim 7.

Regarding claim 15, Beis discloses a method of controlling a photographing mode of a camera (Fig. 4), comprising the steps of: dividing a photographing area into a plurality of cell regions (col. 5, lines 26-41) and detecting an illumination level of each cell region (col. 5, lines 26-41); and switching the photographing mode of the camera on

the basis of the determination (col. 2, lines 31-36). Beis does not disclose determining whether the detected illumination level of each cell region is greater than the previously determined standard illumination level; and counting the number of the cell regions having a lower illumination level than the standard illumination level and determining whether the counted number is greater than a certain percentage of the total number of cell regions.

However, Easterly discloses determining whether the detected illumination level of each cell region is greater than the previously determined standard illumination level (col. 18, line 67, given eight-bit threshold value); counting the number of the cell regions having a lower illumination level than the standard illumination level and determining whether the counted number is greater than a certain percentage of the total number of cell regions (col. 18, line 64-col. 19, line 4). Although Easterly does not specifically state that the number of cell regions is counted, counting the cells in inherent in determining a percentage. One of ordinary skill in that art would have provided means for determining whether the detected illumination level of each cell region is greater than the previously determined standard illumination level; and counting the number of the cell regions having a lower illumination level than the standard illumination level and determining whether the counted number is greater than a certain percentage of the total number of cell regions in a day/night camera that compensates for high and low light intensities by changing between image sensors, such as Beis, in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from highlights caused by small regions of high

intensity that are not representative of the intensity level. As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided means for determining whether the detected illumination level of each cell region is greater than the previously determined standard illumination level; and counting the number of the cell regions having a lower illumination level than the standard illumination level and determining whether the counted number is greater than a certain percentage of the total number of cell regions in a day/night camera that compensates for high and low light intensities by changing between image sensors, such as Beis, in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from highlights caused by small regions of high intensity that are not representative of the intensity level.

Regarding claim 16, please see the rejection of claim 5.

Regarding claim 17, please see the rejection of claim 6.

Regarding claim 18, please see the rejection of claim 7.

Regarding claim 19, Beis discloses a method of controlling a photographing mode of a camera, comprising the steps of: dividing a photographing area into a plurality of cell regions (col. 5, lines 26-41) and detecting the illumination of each cell region (col. 5, lines 26-41); determining whether the illumination is greater than a previously determined standard illumination value (col. 2, lines 31-36); and switching the photographing mode of the camera on the basis of at least one of the determining steps (col. 2, lines 31-36). Beis does not disclose counting the number of the cell regions

having a lower illumination than the standard illumination value and determining whether the counted number of cell regions is greater than a is certain percentage of the total number of cell regions; and switching the photographing mode of the camera on the basis of the determination.

However, Easterly teaches determining whether the illumination of each cell region is greater than a previously determined standard illumination value (col. 18, line 67, given eight-bit threshold value); counting the number of the cell regions having a lower illumination than the standard illumination value and determining whether the counted number of cell regions is greater than a is certain percentage of the total number of cell regions (col. 18, line 64-col. 19, line 4); and switching the photographing mode of the camera on the basis of the determination (col. 18, line 64-col. 19, line 11). One of ordinary skill in that art would have provided means for determining whether the illumination of each cell region is greater than a previously determined standard illumination value; counting the number of the cell regions having a lower illumination than the standard illumination value and determining whether the counted number of cell regions is greater than a is certain percentage of the total number of cell regions; and switching the photographing mode of the camera on the basis of the determination in a day/night camera that compensates for high and low light intensities by changing between image sensors, such as Beis, in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from highlights caused by small regions of high intensity that are not

representative of the intensity level. As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided means for determining whether the illumination of each cell region is greater than a previously determined standard illumination value; counting the number of the cell regions having a lower illumination than the standard illumination value and determining whether the counted number of cell regions is greater than a is certain percentage of the total number of cell regions; and switching the photographing mode of the camera on the basis of the determination in a day/night camera that compensates for high and low light intensities by changing between image sensors, such as Beis, in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from highlights caused by small regions of high intensity that are not representative of the intensity level. Although Easterly does not specifically state that the number of cell regions is counted, counting the cells in inherent in determining a percentage.

Regarding claim 22, please see the rejection of claim 6.

Regarding claim 26, Beis teaches a camera having a photographing mode, comprising: means for dividing a photographing area into a plurality of cell regions (col. 5, lines 26-41) and detecting the illumination of each cell region (col. 5, lines 26-41); means for determining whether the illumination is greater than a previously determined standard illumination value (col. 2, lines 31-36); and means for switching the photographing mode of the camera on the basis of the determination (col. 2, lines 31-36). Beis does not disclose means for determining whether the illumination of each cell

region is greater than a previously determined standard illumination value; means for counting the number of the cell regions having a lower illumination than the standard illumination value; means for determining whether the counted number of cell regions is greater that a certain percentage of the total number of cell regions; and means for switching the photographing mode of the came on the basis of the determination. However, Easterly teaches determining whether the illumination of each cell region is greater than a previously determined standard illumination value (col. 18, line 67, given eight-bit threshold value); means for counting the number of the cell regions having a lower illumination than the standard illumination value (col. 18, line 64-col. 19, line 4); means for determining whether the counted number of cell regions is greater that a certain percentage of the total number of cell regions (col. 18, line 64-col. 19, line 4); and means for switching the photographing mode of the came on the basis of the determination (col. 18, line 64-col. 19, line 11). One of ordinary skill in that art would have provided means for determining whether the illumination of each cell region is greater than a previously determined standard illumination value; means for counting the number of the cell regions having a lower illumination than the standard illumination value; means for determining whether the counted number of cell regions is greater that a certain percentage of the total number of cell regions; and means for switching the photographing mode of the came on the basis of the determination in a day/night camera that compensates for high and low light intensities by changing between image sensors, such as Beis, in order to provide a robust statistical method to determine when to switch photographing modes that reduces false switching determinations from

highlights caused by small regions of high intensity that are not representative of the intensity level. As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided means for means for determining whether the illumination of each cell region is greater than a previously determined standard illumination value; means for counting the number of the cell regions having a lower illumination than the standard illumination value; means for determining whether the counted number of cell regions is greater that a certain percentage of the total number of cell regions; and means for switching the photographing mode of the came on the basis of the determination.

Claims 23, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beis (U.S. Pat. No. 5,172,220), in view of Easterly et al. (U.S. 5,038,216), and further in view of Suzuki et al. (U.S. Pat. No. 6,449,013).

Regarding claim 23, Beis discloses a nighttime mode comprises a black and white image sensor and a daytime mode comprises a color image sensor (col. 1, lines 8-10). Neither Beis nor Easterly disclose the nighttime mode the camera does not use an optical low pass filter. However, Suzuki discloses a camera capable of taking color and high-resolution monochrome images. In particular, Susuki discloses an OLPF is inserted in a color mode and is removed in a monochrome (black and white) mode (Abstract; Fig. 2; Fig. 11, element 3). One of ordinary skill in the art would have used an OLPF in order to suppress high frequency signals that cause false colors when using a color image sensor. Furthermore, one of ordinary skill in the art would have removed

the OLPF when taking black and white images in order to capture high resolution monochrome images comprising high frequency signals since a black and white image sensor is less prone to false colors (col. 4, lines 3-9; col. 10, lines 35-41). As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to have removed the OLPF filter in the night time (black and white) mode in order to capture high resolution monochrome images.

Regarding claim 27, please see the rejections of claims 23 and 26.

Regarding claim 28, please see the rejections of claims 23 and 26.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mizoguchi (U.S. Pat. No. 6,342,922) discloses the use or not use of a optical filter according to normal and high resolution modes.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Jelinek whose telephone number is (571) 272-7366. The examiner can normally be reached on M-F 8:00 am - 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached at (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian Jelinek

4/28/2005

James J. Groody
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Art Unit 262~~2~~2615